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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,719	12/05/2003	John Kavanaugh	2304.JKAV.NP	1733
27472	7590	12/28/2005	EXAMINER	
RANDALL B. BATEMAN BATEMAN IP LAW GROUP 8 EAST BROADWAY, SUITE 550 PO BOX 1319 SALT LAKE CITY, UT 84110			WARREN, DAVID S	
			ART UNIT	PAPER NUMBER
			2837	

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.r)

**Office Action Summary**

Application No.

10/728,719

Applicant(s)

KAVANAUGH, JOHN

Examiner

David S. Warren

Art Unit

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17, 19-34 and 36-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17, 19-34 and 36-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5 - 9, 13 - 16, 21 - 34, and 36 - 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Eps (1,364,466) in view of Young, Jr. (5,052,269). Regarding independent claims 1, 8, 23, 34 and 43, Van Eps discloses the use of a banjo having a head (2) having an opening (15) positioned over a means (16) to increase the volume. Means (18) provide for adjustment. Van Eps does not disclose the use of a pickup system extending through the head nor the use of a preamplifier. Young discloses the use of a pickup system (fig. 4) extending through the sound hole (27) of an acoustic guitar (see Abstract). Official Notice is taken that the use of preamplifiers when amplifying acoustic instruments is notoriously well-known (for example, in the previous Office Action, the patent to Ikuma discloses a preamplifier). It would have been obvious to one of ordinary skill in the art to combine the teachings of Van Eps and Young to obtain a banjo, having a pickup extending through the head. The motivation for making this combination would be to provide a banjo having a vibrating membrane wherein a pickup could be positioned in such a way as to be closer to the strings thus providing a "hotter" pickup signal. The element 20 of Young is

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functionally equivalent to the stabilizing/tension bar of the Applicant. While it may not provide tension per se, it is located in precisely the same location as the Applicant's tension bar and one of ordinary skill would certainly think to mount a pickup to a tension bar. Regarding claims 2 and 9, Young discloses a hole wherein the pickup is "received" (see fig. 4). Regarding claims 5 and 13, stabilizer bars are shown in Young as element 20 (furthermore, given the nature of the banjo head, one of ordinary skill would think to mount the pickup on elements 9, 12, or 13 of Van Eps). Regarding claims 6 and 14, lead wires are inherent in any pickup system. Regarding claim 7, element 25 of Young is used as an adjustment. Regarding claims 15, 16 and 24, the use of humbucking pickups is notoriously old and well-known to reduce noise from external sources of electromagnetic radiation, one of ordinary skill would think to use humbucking pickups as a design choice (furthermore, Young shows two two-coil pickups, this type of two-coil pickups is generally used to show two noise-canceling, i.e., humbucking, pickups). Regarding claims 25 – 29, 41, and 42, the mounting structure and method (i.e., nuts, bolts, springs, clips, etc.) are deemed to be within the scope of one of ordinary skill. Regarding claims 21, 30, 33, 36 and 39, as stated supra, the use of a preamp in amplifying acoustic instruments is notoriously well-known and is deemed a design choice. The controls 28 are volume (balance) and tone. Regarding claims 22, 31, 32 and 38, Young discloses two pickups, each having a portion within the instrument (23, fig. 4). Regarding claim 34, placing the preamp in a box is deemed to be mere design choice (as is shape, i.e., the Applicant has not provided any information as to why a



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curved box is critical). Regarding claims 37 and 40, by balancing (by controlling the knobs) between each pickup, Young presumably would alter the tone.

3. Claims 3, 10, 11, 17, and 20 and are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Eps in view of Young and Nyack, Jr. et al. (4,602,547). The teachings of Young and Van Eps have been discussed supra. Neither Van Eps nor Young disclose the use of a plural holes to accommodate plural "heads" (i.e., cores or pole pieces). Nyack discloses a planar surface (24) having plural holes to accommodate plural "heads" (compare figs. 4 and 5). It would have been obvious to one of ordinary skill in the art to combine the teachings of Young, Van Eps, and Nyack to obtain a pickup system for a banjo wherein plural cores are exposed to the strings via plural holes. The motivation for making this combination is to maintain a larger surface area of the banjo head to prevent any degradation of the acoustic, unamplified tone of the instrument.

4. Claims 4, 12 and 19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Eps in view of Young and Cox (4,213,368). The teachings of Young and Van Eps are discussed supra. Neither Young nor Van Eps disclose the use of a reinforcing layer disposed about the hole. Cox discloses a hole in a banjo head having a reinforcing layer (4' and 4'', fig. 2; col. 3, lines 1 – 3). It would have been obvious to one of ordinary skill in the art to combine the teachings of Young, Van Eps, and Nyack to obtain a banjo having a reinforced hole. The motivation for making this combination is that by reinforcing the hole, tearing and splitting are avoided.

### ***Response to Arguments***

5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

6. *The crux of the Examiner's rejection is this:* Van Eps discloses adding a sound-hole to a banjo. Young discloses placing a pickup through a sound-hole. One of ordinary skill would certainly think to combine these teachings to obtain Applicant's invention. The Examiner notes that many limitations within the claims are drawn to elements such as "lead wires extending from the pickup to the exterior..." (claim 6), "adjustable pick-up heads" (claim 7), "humbucking pickup" (claim 15), a preamplifier, and "volume, tone, and the balance" controls (claim 30), "a second pickup," a "box for holding ... amplification circuit," a "tone control" (claim 37), etc. Such features are notoriously old within the art and are common place in any commercial electric stringed instrument.



### ***Conclusion***

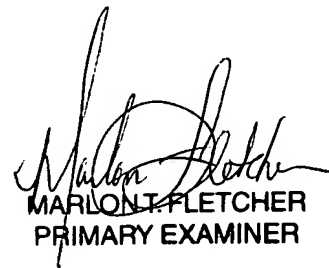
7. The prior art made of record and relied upon is considered pertinent to applicant's disclosure. The patents to Carter (555,636) and Gardie (1,424,296) are cited to show banjo heads with sound holes beneath the strings.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Warren whose telephone number is 571-272-2076. The examiner can normally be reached on M-F, 9:30 A.M. to 6:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2800 ext 37. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dsw



MARLON FLETCHER  
PRIMARY EXAMINER